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Mrs. Teresa J. Walberg
Examiner, Art Unit 3742
Commissioner for Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450

December 31, 2004

Re: Office Action dated Oct. 18, 2004; US Patent Application 10/696,617 filed 10/29/2003.

Dear Mrs. Walberg,

The following is our reply to the Office Action dated 10/18/2004.

We appreciate you for all yours arguments and agree with most of them. We understand that our first claim declared broader matter than we applied.

All prior arts, cited by the Examiner, except Rubenstein (6,798,663) disclose the cooling systems when fans or blowers are not directly connected with the heatsinks, thus requiring the significant amount of space for such systems. According to our drawings and specification the radial blower being in the direct contact with the heatsinks (the blower inlet coincides with the outflow opening of the housing), therefore our design requires less space.

Rubenstein (6,798,663) discloses the system "... comprising a fan module operable to provide forced air flow over said heat sink". First, this citation and the drawings (see Fig. 3A) show that there is an axial fan, not a radial one. And the second, the term "fan" usually used for axial fans, while the term "blower" used for radial (centrifugal) blowers those creates more static pressure then axial fans. Therefore, the design according to our invention characterized by more cooling air and, therefore, by more cooling efficiency.

Another novelty of our design is in the difference of aerodynamic scheme. According to Rubenstein the cooling air flows from the top of the heatsinks to the sides, while according to our Patent Application the cooling air flows vice versa - from the sides to

the top of the heatsinks. Thus, the proposed invention has essential novelties and provides more aerodynamic and thermal efficient scheme.

Based on the Office Action and Prior Arts cited by the Examiner, we would like to cancel all 9 claims from the original file and add the following new claims 10 - 18 without entering new matter:

10. A multi-heatsink cooler for at least two electronic components comprising at least two heatsinks with heat-exchanging means, a radial blower and a housing, wherein:

- (i) each of said heatsinks comprising a base being thermally connected with at least one of said electronic component and said heat-exchanging means, and at least one inflow opening and an outflow opening;
- (ii) said radial blower comprising an impeller and a casing with an inlet and an outlet;
- (iii) said housing comprising a cover plate with an opening being coincided with at least a part of said inlet;
- (iv) said cover plate being attached to said heatsinks from the side opposite to said base;
- (v) said inflow opening being located at the side part of said heatsink, said outflow opening being coincided with said opening of said cover plate, thus cooling air flows through said inflow opening, said heat-exchanging means, said outflow opening, said inlet, said impeller and said outlet in a series way.

11. The cooler as claimed in claim 10, wherein said heat-exchanging means are fins and/or pins - fins structure.

12. The cooler as claimed in claim 10, wherein said cover plate being placed in a recess made at a top part of said heatsinks, thus said radial blower being at least partially placed into said recess.

13. The cooler as claimed in claim 10, wherein said opening of said cover plate being located at top parts of said heatsinks.

14. The cooler as claimed in claim 10, wherein said opening of said cover plate being at least partially placed aside from top parts of said heatsinks.

15. The cooler as claimed in claim 14, wherein each of said heatsinks from the side opposite to said inflow opening hydraulically connected by a combined collector with at least part of said opening of said cover plate, thus cooling air flows through said inflow .

openings, said heat-exchanging means, said outflow opening and said combined collector, said inlet, said impeller and said outlet in a series way.

16. The cooler as claimed in claim 10, wherein at least one sealing element being placed into the space between said adjacent heatsinks, thus excluding the direct flow from ambient air to said inlet.

17. The cooler as claimed in claim 10, wherein said cooler further comprising at least one compensating element from elastic material located between said cover plate and said heatsinks, thus compensating the differences in locations and tolerances of said heatsinks.

18. The cooler as claimed in claim 17, wherein said compensating element being made from high thermal conductive material and thermally connected with said heat-exchanging means.

We kindly ask you for further consideration of our Patent Application.

Please find attached Statement Under 37 CFR 3.73(b) and a copy of Assignment.

Best regards,



Edward Lopatinsky
Vice-President

PS. ROTYS Inc. has changed address to:
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